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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,976	02/05/2004	Allan E. Blackburn	A36080 - 072731.0202	5204

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NEW YORK, NY 10112

EXAMINER
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KASTLER, SCOTT R

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/772,976

Applicant(s)

BLACKBURN ET AL.

Examiner

Scott Kastler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### ***Claim Objections***

Claims 2-6 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The above claims do not fairly further limit independent apparatus claim 1 because the above claims recite only limitations dealing with the manner or method in which the claimed apparatus is to be employed (how the electron gun is to be directed around the cold hearth area). It has been well settled that the manner or method of use of an apparatus cannot be relied upon to fairly further limit claims to the apparatus itself. See MPEP 2114 and *In re Casey*, 152 USPQ 235.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by either of Joseph or Entrikin et al. Both of Joseph and Entrikin et al teach a cold hearth melting and refining arrangement including a cold hearth holding a pool of molten metal (20 in Joseph and 10 in Entrikin et al), an electron gun configured to generate an electron beam ( 24 in Joseph and 14 or 15 in Entrikin et al) and a programmable controller for moving the electron beam in a pattern for evaporating impurities that collect on the pool edge ( see col. 5 lines 30-40 for example in Joseph

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and col. 4 lines 27-35 for example Entrikin et al) thereby showing all aspects of the above claims since as stated above, with respect to instant claims 1-6, the actual manner in which the electron gun is moved is a limitation directed to the use of the claimed apparatus and cannot be relied upon to further limit claims to the apparatus itself.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by either of Harker'776 or Harker'635. Both of Harker'776 and Harker'635 teach a cold hearth melting and refining arrangement including a cold hearth holding a pool of molten metal (10), an electron gun configured to generate an electron beam ( 15) and a programmable controller for moving the electron beam in any desired pattern (see col. 2 lines 45-61 of each of Harker'776 and Harker'635 for example), thereby showing all aspects of the above claims since as stated above, the actual manner in which the electron gun is moved is a limitation directed to the use of the claimed apparatus and cannot be relied upon to further limit claims to the apparatus itself.

### ***Response to Arguments***

Applicant's arguments filed on 9/27/2005 have been fully considered but they are not persuasive. Applicant's argument that none of the cited references teach a "skull-wing inhibiting configuration" is not persuasive because as stated above each of the above references teach an electron gun which can be moved in the recited manners in order to inhibit skull wing formation, while, again as recited in the above references, each of Joseph and Entrekin specifically express sweeping the electron gun in a manner in order to evaporate impurities that collect on the pool

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edge ( see col. 5 lines 30-40 for example in Joseph and col. 4 lines 27-35 for example Entrikin et al).

Applicant's further argument that the amendments to the instant claims render the apparatus claims 2-6 properly further limiting are also not persuasive because as stated above, the above apparatus claims still recite only limitations dealing with the manner or method of use of the claimed apparatus which could be fairly met by any apparatus meeting the requirements of independent apparatus claim 1.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

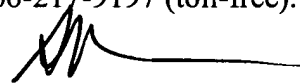
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Scott Kastler  
Primary Examiner  
Art Unit 1742

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